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From: Stan Kaczmarek

**Sent:** Wed 10/2/2013 2:16:18 PM

**Subject:** Sediment Sampling and Poling, Cuts 4T and 6T Sediment Thickness Data Areas 4T and 6T Update.xlsx

## Mike, Stephanie and Sharon,

To further characterize the undercut areas identified in Cuts 4T and 6T, a poling investigation and sediment sampling was conducted. The poling was conducted on 5 foot centers and seven (7) sediment samples were collected. The results from these investigations are attached. The data points highlighted in yellow represent areas where 1) the dredging operations undercut the minimum average design depth of 1.75 feet for a 10 ft by 10 grid, and 2) the poling investigation determined that there was sand, gravel and or sediment present at depths greater than or equal to 1 foot. These conditions were only found in Cut 4T. The blue highlighted areas indicate the approximate location of the sediment sampling. In addition, a table indicating the number of attempts required to collect 20 oz of sediment from each sampling location is provided.

The results of the poling and sediment sampling indicate that the areas of soft sediment which remain in Cut 4 are localized and unevenly dispersed between areas of hard subsurface material. While the open environmental bucket covers a nominal area 5 ft X 10 ft, an area of 7 X 12 ft is used to determine if there is enough maneuverability to place the buckets and take that cut. This size would be represented by a group of highlighted blocks 2 by 3 in size. Areas smaller than 7 ft by 12 ft are considered undredgeable. Therefore, as the highlighted areas in Cut 4T do not form a dredgeable 7 ft x 12 ft area no further dredging will be attempted.

CPG will provide analytical results for the underlying sediment in these areas as soon as they become available.

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